

WHAT IS CLAIMED IS:

1. Canceled.
2. (Currently amended) The method of Claim 54, further comprising reentering the sleep mode upon ~~the favorable comparison~~ determining that the additional encoded paging burst is a null page.
3. (Currently amended) The method of Claim 54 wherein the additional encoded paging burst comprises 4 radio frequency bursts, and wherein when a comparison of a first RF burst is unfavorable, a comparison of a subsequent RF burst is made, wherein if comparisons of the 4 RF bursts are unfavorable, the additional encoded paging burst is decoded to produce a processed encoded paging burst.
4. (Canceled)
5. (Currently Amended) A method to determine when a wireless terminal has been paged by a servicing base station, the method comprises:  
receiving an encoded paging burst on a paging channel;  
decoding the encoded paging burst to produce a decoded paging burst;  
determining that the decoded paging burst contains a null page for the wireless terminal;  
processing the encoded paging burst to produce a null page pattern, wherein the null page pattern comprises a bit pattern;  
entering a sleep mode for a sleep mode period;  
awakening from the sleep mode to receive an additional encoded paging burst on the paging channel;  
processing the additional encoded paging burst to produce a processed encoded paging burst, wherein the processed encoded paging burst comprises a plurality of soft decision bits;  
The method of claim 4, wherein:

comparing the processed encoded paging burst to the null page pattern comprises comparing each bit of the null page pattern to a corresponding soft decision bit of the processed encoded page burst to produce a plurality of comparisons; and when the number of comparisons exceeds a comparison threshold, determining that the additional encoded paging burst is a null page.

6. (Canceled)

7. (Currently amended) The wireless terminal of Claim 56

~~The method of claim 6, wherein:~~

~~comparing the processed encoded paging burst to the null page pattern comprises comparing each soft decision bit of the null page pattern to a corresponding soft decision bit of the processed encoded page burst to produce a plurality of comparisons; and when the number of comparisons exceeds a comparison threshold, determining that the additional encoded paging burst is a null page.~~

wherein the null page pattern and the processed encoded paging burst each comprise a plurality of soft decision bits.

8. (Currently amended) The method of Claim 54, wherein processing the additional encoded paging burst includes at least equalizing the additional encoded paging burst to produce a plurality of soft decision bits.

9. (Currently amended) The method of Claim 54 further comprises, when the number of comparisons does not exceed the comparison threshold, determining that comparison is unfavorable, assuming that the wireless terminal has been paged.

10. (Currently amended) The method of Claim 54 wherein the comparison is favorable when the processed encoded paging burst and the null page pattern meet a similarity threshold when the additional encoded paging burst is a null page.

11. (Currently amended) The method of Claim 54 wherein the sleep mode period ranges between about 0.5 second to about 2.0 seconds.

12. (Currently amended) The method of Claim 54, wherein the wireless terminal awakens from the sleep mode at the expiration of a sleep mode period to receive as least one paging burst.

13. (Currently amended) The method of Claim 54, wherein the wireless terminal operates according to the GSM standard.

14. (Currently amended) The method of Claim 54, wherein processing the encoded paging burst to produce a null page pattern comprises:

determining an encoding process employed by the servicing base station for the paging burst; and

re-encoding the decoded paging burst using a determined encoding process to produce the null page pattern.

15. (Currently amended) The method of Claim 54, wherein processing the encoded paging burst to produce a null page pattern comprises:

equalizing the encoded paging burst to produce a plurality of soft decisions;  
generating a bit pattern based upon the plurality of soft decisions; and  
using the bit pattern as the null page pattern.

16. (Currently amended) A wireless terminal that comprises:  
a Radio Frequency (RF) front end;  
a baseband processor communicatively coupled to the RF front end;  
an enCOder/DECoder (CODEC) processing module communicatively coupled to the baseband processor;

wherein during a first time period, the RF front end, the baseband processor, and the CODEC processing module are operable to:

receive an encoded paging burst on a paging channel;  
decode the encoded paging burst to produce a decoded paging burst;  
determine that the decoded paging burst contains a null page for the wireless terminal;

process the encoded paging burst to produce a null page pattern;  
enter a sleep mode for a sleep mode period; and

wherein during a second time period, the RF front end, the baseband processor, and the CODEC processing module are operable to:

awaken from the sleep mode to receive an additional encoded paging burst on the paging channel;

process the additional encoded paging burst to produce a processed encoded paging burst, wherein:

the null page pattern comprises a bit pattern; and  
the processed encoded paging burst comprises a plurality of soft decision bits;  
~~compare the processed encoded paging burst to the null page pattern; and~~  
~~compare each bit of the null page pattern to a corresponding soft decision bit of the processed encoded page burst to produce a plurality of comparisons; and~~  
~~when the number of comparisons exceeds a comparison threshold, determine that the additional encoded paging burst is a null page~~  
~~when the comparison is favorable, determining that the additional encoded paging burst is a null page.~~

17. (Currently amended) The wireless terminal of Claim 16-14, wherein during the second time period, the RF front end, the baseband processor, and the CODEC processing

module are operable to reenter the sleep mode upon determining the additional encoded paging burst is a null page the favorable comparison.

18. (Currently amended) The wireless terminal of Claim 16 44, wherein during the second time period, the CODEC processing module is operable to, when the comparison is unfavorable, decode the processed encoded paging burst.

19. (Canceled)

20. (Canceled)

21. (Currently amended) The wireless terminal of Claim 16 44 wherein the null page pattern and the processed encoded paging burst each comprise a plurality of soft decision bits.

22. (Currently amended) The wireless terminal of Claim 21 49, wherein: the baseband processor is operable to compare each soft decision bit of the null page pattern to a corresponding soft decision bit of the processed encoded page burst to produce a plurality of comparisons; and

when the number of comparisons exceeds a comparison threshold, the baseband processor is operable to determine that the additional encoded paging burst is a null page.

23. (Currently amended) The wireless terminal of Claim 16 44, wherein in processing the additional encoded paging burst, the baseband processor is operable to equalize the additional encoded paging burst to produce a plurality of soft decision bits.

24. (Currently amended) The wireless terminal of Claim 16 44, wherein during the second time period, the baseband processor is operable to, when the comparison is unfavorable, assume that the wireless terminal has been paged.

25. (Currently amended) The wireless terminal of Claim 16 ~~14~~, wherein during the second time period, the baseband processor is operable to determine that the comparison is favorable when the processed encoded paging burst and the null page pattern meet a similarity threshold.

26. (Currently amended) The wireless terminal of Claim 16 ~~14~~, wherein the sleep mode period ranges between about 0.5 second to about 2.0 seconds.

27. (Currently amended) The wireless terminal of Claim 16 ~~14~~, wherein the wireless terminal operates according to the GSM standard.

28. (Currently amended) The wireless terminal of Claim 16 ~~14~~, wherein the baseband processor is operable to produce the null page pattern by:  
determining an encoding process employed by the servicing base station for the paging burst; and  
re-encoding the decoded paging burst using a determined encoding process to produce the null page pattern.

29. (Currently amended) The wireless terminal of Claim 16 ~~14~~, wherein the baseband processor is operable to produce the null page pattern by:  
equalizing the encoded paging burst to produce a plurality of soft decisions;  
generating a bit pattern based upon the plurality of soft decisions; and  
using the bit pattern as the null page pattern.

30. (Currently amended) A wireless terminal that comprises:  
a Radio Frequency (RF) front end;  
a baseband processor communicatively coupled to the RF front end;  
wherein during a first time period, the RF front end and the baseband processor are  
operable to:

receive an encoded paging burst on a paging channel;  
decode the encoded paging burst to produce a decoded paging burst;  
determine that the decoded paging burst contains a null page for the wireless terminal;  
process the encoded paging burst to produce a null page pattern; and  
enter a sleep mode for a sleep mode period; and

wherein during a second time period, the RF front end and the baseband processor are  
operable to:

awaken from the sleep mode to receive an additional encoded paging burst on the paging  
channel;

process the additional encoded paging burst to produce a processed encoded paging  
burst;

compare each bit of the null page pattern to a corresponding soft decision bit of the  
processed encoded page burst to produce a plurality of comparisons; and

when the number of comparisons exceeds a comparison threshold, the baseband  
processor is operable to determine that the additional encoded paging burst is a null page.

~~compare the processed encoded paging burst to the null page pattern; and~~

~~when the comparison is favorable, determining that the additional encoded paging burst  
is a null page.~~

31. (Currently amended) The wireless terminal of Claim 3028, wherein during the  
second time period, the RF front end and the baseband processor are operable to reenter the sleep  
mode upon the favorable comparison.

32. (Currently amended) The wireless terminal of Claim 3028, wherein during the second time period, the baseband processor is operable to, when the comparison is unfavorable, decode the processed encoded paging burst.

33. (Currently amended) The wireless terminal of Claim 3028, wherein:  
the null page pattern comprises a bit pattern; and  
the processed encoded paging burst comprises a plurality of soft decision bits.

34. (Canceled.)

35. (Currently amended) The wireless terminal of Claim 3028—wherein the null page pattern and the processed encoded paging burst each comprise a plurality of soft decision bits.

36. (Currently amended) The wireless terminal of Claim 3533, wherein:  
the baseband processor is operable to compare each soft decision bit of the null page pattern to a corresponding soft decision bit of the processed encoded page burst to produce a plurality of comparisons; and  
when the number of comparisons exceeds a comparison threshold, the baseband processor is operable to determine that the additional encoded paging burst is a null page.

37. (Currently amended) The wireless terminal of Claim 3028, wherein in processing the additional encoded paging burst, the baseband processor is operable to equalize the additional encoded paging burst to produce a plurality of soft decision bits.

38. (Currently amended) The wireless terminal of Claim 3028, wherein during the second time period, the baseband processor is operable to, when the comparison is unfavorable, assume that the wireless terminal has been paged.

39. (Currently amended) The wireless terminal of Claim 3028, wherein during the second time period, the baseband processor is operable to determine that the comparison is

- favorable when the processed encoded paging burst and the null page pattern meet a similarity threshold.

40. (Currently amended) The wireless terminal of Claim 3028, wherein the sleep mode period ranges between about 0.5 second to about 2.0 seconds.

41. (Currently amended) The wireless terminal of Claim 3028, wherein the wireless terminal operates according to the GSM standard.

42. (Currently amended) The wireless terminal of Claim 3028, wherein the baseband processor is operable to produce the null page pattern by:

determining an encoding process employed by the servicing base station for the paging burst; and

re-encoding the decoded paging burst using a determined encoding process to produce the null page pattern.

43. (Currently amended) The wireless terminal of Claim 3028, wherein the baseband processor is operable to produce the null page pattern by:

equalizing the encoded paging burst to produce a plurality of soft decisions;  
generating a bit pattern based upon the plurality of soft decisions; and  
using the bit pattern as the null page pattern.

Conclusion

Applicants have now made an earnest attempt to place this case in condition for allowance. For the foregoing reasons and for other reasons clearly apparent, Applicants respectfully request full allowance of Claims 2-3, 5, 7-18, 21-33 and 35-43.

An extension of three (3) months is requested under 37 C.F.R. § 1.136 with the appropriate fee attached. While Applicants believe no fee is due with this transmission, if any fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 50-2126 of Garlick Harrison & Markison, LLP.

It is believed no fee is due with this transmission, however, should a fee be determined due with this transmission, the Commissioner is authorized to debit Deposit Account No. 50-2126 of Garlick, Harrison & Markison, LLP.

Respectfully submitted,



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